IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF IOWA CEDAR RAPIDS DIVISION

UN	ITED	STATI	ES OF AMERICA,					
		Pla	intiff,	No. 04-CR-0010-LRR				
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VS.				ORDER				
MA	RK L	OU MI	EYER,	FOR PUBLICATION				
		De	fendant.	2 0212 0222011				
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V.

I. INTRODUCTION

The matter before the court is the government's Petition for Revocation of Probation ("Petition") (docket no. 51).

II. PROCEDURAL BACKGROUND

On January 22, 2004, Defendant Mark Lou Meyer was charged in a one-count indictment with being an unlawful user of a controlled substance in possession of firearms, in violation of 18 U.S.C. § 922(g)(3). On February 17, 2004, Defendant was placed on pretrial supervision (*see* docket no. 5). Defendant failed to report for drug testing on March 1, 2 and 3, 2004, and on April 4, 5, 11, 12 and 13, 2004.

On March 6, 2004, Defendant tested positive for cocaine use via urinalysis. The court referred Defendant for treatment at the Sedlacek Treatment Center and the Abbe Center for Behavioral Services ("Abbe Center"). On April 12, 2004, Defendant's United States Probation Officer ("Probation Officer") directed Defendant to assent to a drug test. Defendant failed to report and gave the excuse that he was with a horse that was giving birth. On April 13, 2004, Defendant's Probation Officer directed Defendant to appear that evening to give a urine sample. Defendant failed to appear on April 13, 2004, but he did appear on April 14, 2004. His urine tested positive for cocaine.

On April 19, 2004, Defendant appeared before United States Magistrate Judge John A. Jarvey and pled guilty to count one of the indictment. On May 5, 2004, the undersigned accepted Defendant's guilty plea. Defendant remained on supervision pending sentencing.

Defendant failed to report to his Probation Officer four different times between April and June of 2004. On May 13, 14, 15, 17, 18 and 19, 2004, and June 2, 2004, Defendant failed to appear for drug testing.

On May 26, 2004, the government filed a Petition for Revocation of Pretrial Release. On June 3, 2004, Defendant's pretrial release was revoked. Prior to the June 3, 2004 hearing on the government's petition to revoke Defendant's pretrial release status, Defendant's urine again tested positive for cocaine.

During his pre-sentence interview, Defendant lied to the Probation Officer. Defendant stated that he had not used controlled substances since his arrest on February 17, 2004. On September 1, 2004, the undersigned sentenced Defendant to three years probation. Defendant was prohibited from possessing and using illegal controlled substances while on probation. (docket no. 46). The first Standard Condition of Defendant's probation provides that "the defendant shall not leave the judicial district without the permission of the court or probation officer." (*Id.*). The second Special Condition of Defendant's probation provides that "[t]he defendant shall participate in a program of testing and treatment for substance abuse, as directed by the probation officer, until such time as the defendant is released from the program by the probation officer." (*Id.*).

On May 24, 2006, the undersigned signed a Petition for Warrant or Summons for Offender Under Supervision ("Petition for Warrant") (docket no. 48) presented by the United States Probation Office ("USPO"). The Petition for Warrant alleges that Defendant violated the terms of his probation in seven respects. The USPO alleges Defendant violated Special Condition 2 of his probation conditions by testing positive for cocaine six times in a one year span. It also alleges Defendant violated Standard Condition 1 of his probation conditions by traveling outside the Northern District of Iowa without the permission of his Probation Officer.

On June 7, 2006, the undersigned signed a Supplemental Petition for Warrant or Summons for Offender Under Supervision ("Supplemental Petition for Warrant") (docket

no. 59) presented by the USPO. The Supplemental Petition for Warrant alleges that Defendant again violated Special Condition 2 of his probation conditions by testing positive for cocaine. On June 15, 2006, the undersigned signed another Supplemental Petition for Warrant or Summons for Offender Under Supervision ("Second Supplemental Petition for Warrant") (docket no. 67). In the Second Supplemental Petition for Warrant, the USPO alleges that Defendant violated Special Condition 2 of his probation conditions by testing positive for cocaine yet again.

Defendant denies violating these conditions of probation, and, therefore, evidentiary hearings were held on June 6, 2006, June 7, 2006, and July 5, 2006. Assistant United States Attorney Patrick Reinert represented the government. Defendant was personally present at each hearing. Attorney Cory Goldensoph represented Defendant at the first two hearings. Attorney Michael Mollman represented Defendant at the July 5, 2006 hearing. At the request of Defendant, the court left the record open between June 7, 2006, and July 5, 2006, so that Defendant could locate an expert and present expert testimony.

III. FACTUAL FINDINGS

On September 1, 2004, Defendant began his sentence of probation. That same day, the USPO referred him to substance abuse treatment programming at the Area Substance Abuse Council ("ASAC") in Cedar Rapids. After attending approximately four outpatient groups, Defendant quit going to treatment because he wanted to go to truck driving school.

Also in September of 2004, the USPO referred Defendant to the Abbe Center for a mental health evaluation. The treating professional opined that Defendant was doing better than he had been on pretrial release and was making adjustments in his behavior.

While on probation, Defendant participated in two different drug testing programs: urinalysis and the sweat patch specimen program.

A. Urine Samples

During the period from March 6, 2006, to May 16, 2006, Defendant submitted a number of urine samples, both at the USPO and the Gary Hinzman Center. All of these samples tested negative for controlled substances, including cocaine. The urine samples were submitted on March 2, 20 and 30, 2006; April 6, 17 and 24, 2006; May 3, 6, 11, 16, 22, 26, 27, 29 and 30, 2006; and June 1, 3, 4 and 5, 2006. Defendant testified that, on April 13, 2006, he submitted an additional urine sample as part of his employment. He testified that the sample tested negative for cocaine. Defendant submitted two urine samples on June 7, 2006. The first sample from June 7, 2006 was negative for controlled substances and the second urine sample that day tested borderline for dilution. The government does not dispute that each of Defendant's urine samples tested negative for cocaine.

B. Sweat Patch Specimen Program

1. Protocol for application and removal

Defendant began participation in the sweat patch specimen program in November of 2005. The USPO uses PharmChek sweat patches which are manufactured by PharmChem, Inc. ("PharmChem"). The sweat patches are composed of an absorbent pad and an outer membrane. In some cases, a "window frame" is placed over the outer membrane to ensure that the pad and membrane remain in place. The skin is cleansed with alcohol, the patch is applied to the wearer's arm and, over the following week, the absorbent pad collects the wearer's sweat. The pad is removed after a week or more and sent to a laboratory for testing.

At the June 6, 2006 evidentiary hearing, Supervising United States Probation Officer and drug specialist John Zielke ("Officer Zielke") testified that he received specialized training, for which he received a certificate, on methods to apply and remove PharmChem's

sweat patches. (Gov't Ex. 1). Officer Zielke also testified that he trained the USPO staff in the Northern and Southern Districts of Iowa to do the same. Officer Zielke testified that the USPO staff were required to take an examination on the application and removal procedures. United States Probation Officer Michael Mims ("Officer Mims") participated in that training. In 2002, United States Probation Officer Jim Paul ("Officer Paul") received similar training in Omaha, Nebraska. Officers Zielke, Mims and Paul were the only officers who applied patches to and removed patches from Defendant. ¹

Officer Zielke also described the protocol that the USPO uses for the sweat patch specimen program. Before a sweat patch is applied to the donor's skin, the collecting officer completes a specimen log (an in-house record keeping mechanism). The collecting officer then applies the sweat patch, wearing gloves throughout the entire process. First, the collecting officer cleans the donor's skin with isopropyl alcohol. After the skin dries, the collecting officer applies the sweat patch to the donor's skin (usually the upper arm), removes the outer lining and affixes the polyurethane covering to the skin, making sure the edges are sealed to the skin. The collecting officer then completes the chain of custody form, which includes the PharmChek sweat patch number and the date. The donor and collecting officer then initial the form and the collecting officer signs the form, stating that the sweat patch was applied according to the protocol.

Officer Zielke further testified that, if the sweat patch starts to come off prematurely, as occurred once in Defendant's case, the collecting officer uses an overlay or "window

Officer Zielke applied sweat patches to and removed sweat patches from Defendant on March 20, 2006, March 30, 2006, April 17, 2006, and May 3, 2006. Officer Mims applied sweat patches to and removed sweat patches from Defendant on April 6, 2006, May 16, 2006, and May 26, 2006, and removed a sweat patch from Defendant on June 5, 2006. Officer Paul applied a sweat patch to and removed a sweat patch from Defendant on April 24, 2006.

frame" to place over the patch in order to provide better adhesion. The overlay is a covering that is larger than the sweat patch, but otherwise identical to the sweat patch. The collecting officers used an overlay on all patches applied to Defendant after March 6, 2006.

Officer Zielke then testified regarding the removal procedure. First, the collecting officer verifies the PharmChek number on the sweat patch that is adhered to the donor's skin. The collecting officer puts on gloves and peels the top edge of the sweat patch down with disposable tweezers. The collecting officer grabs the absorbent pad with the tweezers and places the absorbent pad into a specimen bag, which the collecting officer immediately seals. The collecting officer completes the removal part of the chain of custody form, takes a bar code label off of the chain of custody form, places it on a specimen bag and takes the security seal off of the chain of custody form. The donor and collecting officer initial the security seal, and the collecting officer uses the security seal to seal the specimen bag. The collecting officer then places the specimen bag into a chain of custody bag. The collecting officer completes the chain of custody form, the collecting officer and the donor sign the chain of custody form and the collecting officer places the chain of custody form in the chain of custody bag. The chain of custody bag (containing the sealed specimen bag and the chain of custody form) is then sealed and placed in a manila envelope. The collecting officer seals the manila envelope and mails the envelope to Clinical Reference Laboratory, an independent laboratory.

The parties do not dispute that the proper protocol was followed in applying, removing and preserving the sweat patches that were applied to Defendant between March 6, 2006 and June 5, 2006. There is no dispute that Clinical Reference Laboratory, which tested these sweat patches, followed acceptable laboratory procedures when testing Defendant's specimens.

2. Defendant's sweat patch results

Since November of 2005, Defendant has had sixteen sweat patches applied, removed and tested. The first seven of the sixteen sweat patches tested negative for the use of illegal substances. The eighth sweat patch that Defendant wore fell off and therefore is not counted by the court as a positive drug test, although it did test positive for cocaine. The last eight of the sixteen sweat patches tested positive for cocaine and cocaine metabolites. The following table shows the information regarding Defendant's sweat patches that tested positive for cocaine and cocaine metabolites:

EXHIBIT AND SPECIMEN NUMBER	DATE APPLIED	DATE REMOVED	RESULTS
N/A	3/06/06	3/20/06	Positive for cocaine but did not adhere to the skin and fell off, so this patch was not counted as a positive drug test
Gov't Ex. 4 Lab Specimen 270811386	3/20/06	3/30/06	Positive for cocaine and cocaine metabolites
Gov't Ex. 5 Lab Specimen 270811392	3/30/06	4/06/06	Positive for cocaine and cocaine metabolites
Gov't Ex. 6 Lab Specimen 270811407	4/06/06	4/17/06	Positive for cocaine and cocaine metabolites
Gov't Ex. 7 Lab Specimen 270811405	4/17/06	4/24/06	Positive for cocaine and cocaine metabolites

EXHIBIT AND SPECIMEN NUMBER	DATE APPLIED	DATE REMOVED	RESULTS
Attached to Gov't Ex. 8 Lab Specimen 270811403	4/24/06	5/03/06	Positive for cocaine and cocaine metabolites
Attached to Gov't Ex. 8 Lab Specimen 270811400	5/03/06	5/16/06	Positive for cocaine and cocaine metabolites
Attached to Supplemental Petition for Warrant (docket no. 67); Lab Specimen 270811398	5/16/06	5/26/06	Positive for cocaine and cocaine metabolites
Attached to Second Supplemental Petition for Warrant (docket no. 59); Lab Specimen 270811396	5/26/06	6/05/06	Positive for cocaine and cocaine metabolites

Defendant only offered one source of potential contamination for his eight positive sweat patch results. Defendant testified that he worked for a company that hauls repossessed cars. Defendant testified that he touched the steering wheels, gearshifts and door handles of these cars and that he put his arm out of the window of these cars. Defendant offered no evidence that drugs were present in these cars, but speculated that drugs from these cars somehow contaminated his eight positive sweat patches.

3. Expert testimony

Dr. Leo Kadehjian, a biochemist, testified on behalf of the government as an expert witness on forensic drug testing. Dr. Kadehjian received a Bachelor's Degree in Organic Chemistry from the Massachusetts Institute of Technology in 1972 and a PhD in Biochemistry from Stanford University in 1977. (Gov't Ex. 7). Dr. Kadehjian previously worked for a pharmaceutical company in the development of drug testing products. Dr. Kadehjian currently works as a consultant to the Administrative Office of the United States Courts ("AO") on drug testing issues.

Dr. Kadehjian testified that the PharmChek sweat patch is approved by the AO for use by the USPO. The United States Department of Transportation uses the sweat patch for drug testing of employees, and the United States Department of Health and Human Services recognizes that the sweat patch has a sufficient scientific foundation. In addition to the endorsements of these organizations, Dr. Kadehjian testified that he "reviewed virtually all" of the peer review articles studying the sweat patch. Based upon his reviews, Dr. Kadehjian believes that the sweat patch has a sufficient scientific level of acceptance.

Dr. Kadehjian testified that he is familiar with the protocols of PharmChem and Clinical Reference Laboratory, the laboratory where Defendant's sweat patches were sent for testing. Dr. Kadehjian testified that the used sweat patches arrive at Clinical Reference Laboratory in their sealed bags and the chain of custody remains intact. Dr. Kadehjian emphasized that the AO determined that drug testing laboratories will not report a sweat patch as positive for cocaine unless Benzoylecgonine (BE), a metabolite of cocaine which is reflective of the drug being broken down by the body, is found. This allows "for greater assurance that the test results are . . . reflective of actual use of the drug."

Dr. Kadehjian also testified that Defendant's negative urine tests and positive sweat patch tests are not inconsistent. Dr. Kadehjian testified that the urine test has a "cutoff"

of 300 nanograms per milliliter of urine. A negative urine test does not mean that there is no drug in the urine; it simply means that the drug amount (if any) is below the test cutoff of 300 nanograms per milliliter. Furthermore, a urine test will only detect drugs for about two days after cocaine use. Casual users of cocaine will normally only have over 300 nanograms of cocaine per milliliter of urine for one to two days. The sweat patch monitors drug use twenty-four hours per day over the period of time of sweat patch wear and will generate a positive test result if drugs are used at any point during the time it is worn.

Dr. Kadehjian noted that Defendant's urine test results are not inconsistent with his sweat patch results because the sweat patch tests show low levels of cocaine, which suggests occasional use of small amounts of cocaine. In other words, the sweat patch results are "consistent with somebody who used a relatively small amount of cocaine." Dr. Kadehjian said that there is "nothing inconsistent about a positive patch result and a negative urine result," as reflected in this case.

Because Defendant presented evidence of a negative hair test, Dr. Kadehjian also discussed the accuracy of hair testing. Dr. Kadehjian testified that one-time drug use may not be detected in hair testing because hair testing measures picograms of cocaine rather than nanograms of cocaine. A picogram is one-thousandth of a nanogram and, therefore, is more challenging to laboratory methods. Dr. Kadehjian stated that there is clinical documentation showing a negative hair result does not necessarily mean there has been no drug use. Furthermore, dying and tinting of hair can cause a dramatic loss of drugs in the hair. Drugs are less likely to bind to blonde hair than to dark hair. Additionally, several products are sold over the internet which can dramatically reduce the amount of drugs in hair. In conclusion, Dr. Kadehjian said, "it's biochemically entirely reasonable to see the pattern of results that we're observing here."

Defendant did not present expert testimony regarding his sweat patch results.

C. Interstate Travel

Defendant testified that he traveled to Chicago, Illinois, on May 1, 2006, in an effort to prove that he was not using controlled substances. Defendant admitted that he left Iowa without permission from his supervising Probation Officer, Lisa Feuerbach ("Officer Feuerbach"), and without submitting a travel request form, in violation of his conditions of probation. Officer Feuerbach testified that she contacted Defendant on May 1, 2006, in order to have him come to the USPO to provide a urinalysis test. Defendant replied that he could not come to the USPO because he was driving in Illinois. Defendant told Officer Feuerbach that he had submitted a hair sample on his behalf. Officer Feuerbach testified that Defendant was not authorized to travel out of state for any reason and that she had not personally given Defendant permission to travel out of state.

Defendant testified that the purpose of the trip was to submit a hair sample for drug testing to Omega Laboratories ("Omega"). Defendant testified as to Omega's hair sample testing protocol. Defendant said that Omega sent him a FedEx sealed package, which Defendant then took to the collection site, a medical laboratory in Aurora, Illinois. Defendant testified that a laboratory technician, wearing rubber gloves, opened the package, took out a sealed plastic bag and pulled a foil packet out of the sealed bag. The foil packet had adhesive on one side. Defendant testified that the laboratory technician clipped over 120 hair follicles off of his head with sterilized scissors. The laboratory technician then placed the hair follicles on the adhesive side of the foil packet. Defendant testified that the laboratory technician folded the foil packet so that it was completely sealed and slid the foil packet into a manila envelope. The laboratory technician then sealed the manila envelope and placed the envelope into another sealed plastic container. Defendant testified that the laboratory technician placed a strip of adhesive, that he signed and dated, over the opening to ensure that it remained sealed. Defendant testified that the laboratory technician sent the

sample to Monroe Falls, Ohio, where it was analyzed. Omega then sent the results by mail to Defendant. Defendant testified that the hair sample tested negative for cocaine. (Gov't Ex. 10).

Defendant's testimony conflicts with the government's evidence. The government presented evidence from Omega's website. (Gov't Ex. 9). The website states that a collection kit for the hair test is sent out to the individual and the individual is responsible for collecting his own hair sample and sending the sample to the laboratory for analysis. (*Id.*).

IV. LEGAL ANALYSIS

A. Standard of Review for Probation Revocation

A sentence of probation may be revoked by the court at any time. *See* 18 U.S.C. §§ 3564(e) and 3565. "Revocation of probation requires only 'enough evidence, within a sound judicial discretion, to satisfy the district judge that the conduct of the probationer has not met the conditions of probation.'" *United States v. Leigh*, 276 F.3d 1011, 1012 (8th Cir. 2002) (quoting *United States v. Goeller*, 807 F.2d 749, 751 (8th Cir. 1986)). The government must prove Defendant has violated his conditions of probation by a preponderance of the evidence. *United States v. Ahlemeier*, 391 F.3d 915, 919 (8th Cir. 2004).

B. Violations

1. Interstate travel

Defendant violated the first Standard Condition of his probation, which states that Defendant shall not leave the judicial district without the permission of the court or Probation Officer. Defendant does not dispute that he traveled outside of the Northern District of Iowa to Chicago, Illinois, on May 1, 2006, to provide a hair sample to Omega for hair drug testing. Defendant also admits that he did not submit a travel request form

to the USPO and did not obtain prior permission to travel to Illinois from Officer Feuerbach. The reason provided by Defendant does not excuse his impermissible travel. The court finds by a preponderance of the evidence that Defendant violated a condition of his probation by traveling outside of the Northern District of Iowa on May 1, 2006, without the permission of Officer Feuerbach or any other officer at the USPO.

2. Sweat patches

Defendant violated the second Special Condition of his probation, which states that the Defendant shall participate in a program of testing and treatment for substance abuse, as directed by the Probation Officer, until such time as Defendant is released from the program by the Probation Officer. Between March and June of 2006, Defendant submitted eight sweat patches that tested positive for cocaine and cocaine metabolites.

The Eighth Circuit Court of Appeals has not had the opportunity to address the reliability of sweat patch programs for monitoring illegal drug use. *See United States v. Redd*, 318 F.3d 778, 780 n.2 (8th Cir. 2003) ("[B]ecause no *Daubert* challenge was raised, this opinion should not be read as a general endorsement or rejection of sweat patch technology."). The only circuit court to rule directly on the reliability of sweat patches concluded that sweat patch results were reliable enough to be considered by the sentencing court. *United States v. Gatewood*, 370 F.3d 1055, 1061-62 (10th Cir. 2004), *vacated on other grounds*, 543 U.S. 1109 (2005). In *Gatewood*, the defendant submitted several sweat patches that tested positive for methamphetamine, admitted to using an illegal drug at least once during the relevant period and offered no evidence supporting the lack of reliability of the sweat patch. *Id.* Most of the reported cases on this issue come from various district courts. Generally, other district courts have found sweat patch testing to be reliable. *See e.g., United States v. Bentham*, 414 F. Supp. 2d 472, 473 (S.D.N.Y. 2006) (finding most sweat patch testing to be reliable, but noting that some studies report false positives).

In *United States v. Stumpf*, 54 F. Supp. 2d 972 (D. Nev. 1999), the court received into evidence sweat patch test results showing methamphetamine usage and relied on the patches, nearly exclusively, as a basis for revoking supervised release. *Stumpf*, 54 F. Supp. 2d at 972-73. The *Stumpf* court noted that the PharmChem sweat patch had been "subjected to a variety of tests by different organizations and has proven to be highly reliable as a test for the use of cocaine, in particular. . . ." *Id.* at 973. The *Stumpf* court also noted that scientific testing on the patch has shown a "very low potential rate of error" and the protocol for "applying, maintaining, removing and testing the sweat patch [is] sufficiently rigorous to assure reliability." *Id. But see United States v. Snyder*, 187 F. Supp. 2d 52, 61 (N.D.N.Y. 2002) (questioning the reliability of the sweat patch in a distinct situation where the defendant sweat profusely and resided with a drug user).

Some district courts, noting that false positives do not occur in real world situations, have disregarded the results of the false-positive studies. *See e.g., United States v. Zubeck,* 248 F. Supp. 2d 895, 899 (W.D. Mo. 2002) (revoking supervised release, accepting the testimony of Dr. Kadehjian and relying on one PharmChem sweat patch that tested positive for methamphetamine, without any other evidence of drug use, where there was no reliable evidence of outside contamination); *Bentham,* 414 F. Supp. 2d at 474-75 (finding that defendant used cocaine in violation of his probation and relying on two sweat patches that tested positive for cocaine, without any other evidence of drug use, where there was no believable evidence of outside contamination).

Other district courts have found that the minor chance of a false positive is not sufficient to completely undermine the reliability of the sweat patch as a useful monitor when a defendant does not offer evidence of outside contamination or when a defendant submits several sweat patches that test positive for cocaine over a period of time. *See e.g.*, *United States v. Alfonso*, 284 F. Supp. 2d 193, 203-04 (D. Mass. 2003) (revoking

defendant's pretrial release, and relying on Dr. Kadehjian's expert report and finding that defendant was using cocaine based on the aggregate of three positive sweat patch results to find by a preponderance of the evidence that defendant was using cocaine). In *United States v. Fenimore*, No. 98-00018-04-CR-W-ODS, 2003 WL 23374632 (W.D. Mo. Aug. 29, 2003) (unpublished), the district court held that the sweat patch was reliable and that, "[a]bsent a showing of outside contamination[,]" the government proved by a preponderance of the evidence the defendant "used cocaine in violation of the conditions of her supervised release." *Fenimore*, 2003 WL 23374632 at *3. In *Fenimore*, the defendant "presented no evidence of the possibility of outside contamination and raised no challenge to the reliability of the sweat patch beyond a general denial[.]" *Id.* The court also determined that a negative hair test did not negate a positive sweat patch test and it reasoned that the amount of cocaine needed to produce a positive sweat patch test could also produce a negative hair test. *Id.*

Here, Defendant presented no reliable evidence indicating that his sweat patches were contaminated by outside sources, such as the environment, or by associating with cocaine users. He stated that he worked for a company that hauled repossessed cars. Defendant stated that he touched the steering wheels, gearshifts and door handles of these cars and that he put his arm out the window. Defendant speculated that drugs from these cars somehow contaminated all eight of his sweat patches. However, Defendant offered no evidence showing that drugs were present in these cars. Defendant's argument is pure speculation and conjecture. The court neither finds this evidence reasonable or this argument persuasive.

The evidence showed that Defendant did not make any changes in his residence or other habits between the time he provided negative sweat patches and the time when Defendant began submitting positive sweat patches in March of 2006. Defendant presented

no evidence indicating that he has some peculiar physical condition, such as profuse sweating, that causes sweat patches to test positive for cocaine. In fact, when Defendant first began the sweat patch specimen program, his first seven patches tested negative for cocaine and cocaine metabolites. The evidence shows a consistent pattern of positive sweat patches, not just a single sweat patch which could arguably be a false positive. *See Alfonso*, 284 F. Supp. 2d at 203-04 (relying on the aggregate of several positive sweat patches worn over several months). Defendant simply fails to provide a plausible explanation for the eight positive sweat patch results.

Initially, one might conclude that the positive sweat patch results and the negative urine specimen results in Defendant's case are inconsistent. However, Dr. Kadehjian, the government's expert witness, explained clearly and persuasively that the results are not necessarily inconsistent. Sweat patches test for usage of controlled substances over extended periods of time. Any usage during the period is captured. Urine specimens capture usage of controlled substances during an approximate two day period of time, provided the level of usage reaches the threshold of 300 nanograms per milliliter, at which point drugs are detected and the test is reported as positive by the laboratory. Furthermore, when there is use of illegal substances, urinalysis can produce false negatives, if the person giving the sample flushes his system or times the use of illegal substances. See e.g., Alfonso, 284 F. Supp. 2d at 196 (noting that "because of the widespread usage of the urine tests [to monitor use of illegal substances], techniques and products have been developed to 'beat' them through dilution, adulteration, and substitution, thus further undermining the accuracy of urine tests").

In this case, the court is not persuaded that the one hair sample test result proves Defendant has not used illegal substances from March of 2006 to the present. According to Dr. Kadehjian, hair sample tests do not always give accurate results. Several variables affect the reliability of hair sample testing such as color and products used in the hair, including some products which are sold specifically to aid a person in avoiding detection. Defendant has very light white and gray hair, which, according to Dr. Kadehjian, is less likely to capture usage of controlled substances. Moreover, the court has no way to verify that Defendant did not manipulate the test results by providing a hair sample that was not his own. Defendant provided no testimony from individuals at the hair testing laboratory, and he did not establish a chain of custody. Defendant did not tell Officer Feuerbach that he was traveling out-of-state or that he was going to have a hair sample tested for illegal substances. Such lack of communication is suspicious and suggests that Defendant did not want the USPO to have advance notice that the test was going to be done for fear that the results would not be favorable.

Based on the evidence, the court finds the USPO's sweat patch specimen program results in this case are reliable and establish by a preponderance of the evidence that Defendant has used cocaine at least eight times in the last calendar year. As such, the court finds Defendant has violated the conditions of his probation.

C. Disposition

1. Revocation of probation

Upon a finding that a defendant has violated the terms of his probation, the court has the power to continue, modify, extend (where the maximum was not previously imposed)

The court does not consider the sweat patch that tested positive that was applied on March 3, 2006, and removed on March 20, 2006, because it fell off and was not removed according to the testing protocols.

or terminate (after one year) the defendant's probation. 18 U.S.C. §§ 3563(c), 3564(c) and (d), and 3565(a).

Pursuant to Section 3565(b)(4), the court is required to revoke probation and impose a sentence that includes a term of imprisonment if the court finds that a probationer has violated a condition of probation by testing positive for illegal controlled substances more than three times over the course of one year. 18 U.S.C. § 3565(b)(4). There is, however, an exception to this mandatory revocation rule. Section 3563(e) provides that if a probationer has a positive drug test result, "the court shall consider whether the availability of appropriate substance abuse treatment programs, or an individual's current or past participation in such programs, warrants an exception . . . from the rule of section 3565(b)." 18 U.S.C. § 3563(e).

Here, Defendant has participated in treatment programs with unsuccessful results. On December 19, 2001, Defendant graduated from the treatment program at the Sedlacek Center in Cedar Rapids and promptly began using drugs again. On a June 8, 2004 discharge summary, an ASAC employee noted that Defendant had difficulty keeping appointments and that he missed most of them. In September of 2004, Defendant was referred to the Abbe Center. After his initial assessment at the Abbe Center in October of 2004, Defendant chose not to continue treatment, although encouraged otherwise by his Probation Officer. The ASAC discharge review dated November 16, 2004, indicates that Defendant quit attending treatment in order to go to truck driving school. Defendant has submitted numerous sweat patches that tested positive for cocaine, yet he continues to deny any drug use.

The court finds that Defendant cannot be treated in the community because of his lack of success with treatment programs, his continued use of drugs and his adamant failure

to admit his drug used. Pursuant to 18 U.S.C. §§ 3564(e) and 3565(b)(4), the court finds revocation of Defendant's probation is the appropriate remedy for his failure to abide by the conditions of his probation.

2. A new sentence

Because the court has revoked Defendant's sentence of probation, it must resentence Defendant. 18 U.S.C. § 3565(a)(2). When imposing a sentence, the court must consider the factors listed in Section 3553(a). These factors include:

(1) the nature and circumstances of the offense and the history and characteristics of the defendant; (2) the need for the sentence imposed—(A) to reflect the seriousness of the offense, to promote respect for the law, and to provide just punishment for the offense; (B) to afford adequate deterrence to criminal conduct; (C) to protect the public from further crimes of the defendant; and (D) to provide the defendant with needed educational or vocational training, medical care, or other correctional treatment in the most effective manner; (3) the kinds of sentences available; and (4) the kinds of sentence and the sentencing range established for—(A) the applicable category of offense committed by the applicable category of defendant as set forth in the guidelines— . . . (5) any pertinent policy statement . . . ; (6) the need to avoid unwarranted sentence disparities among defendants with similar records who have been found guilty of similar conduct; and (7) the need to provide restitution to any victims of the offense.

18 U.S.C. § 3553(a). If Defendant is sentenced to a term of imprisonment, the court can impose a term of supervised release following imprisonment. *See* 18 U.S.C. §§ 3564(d) and 3583(a). Defendant was originally sentenced for violating 18 U.S.C. § 922(g)(3), and he was punished pursuant to 18 U.S.C. § 924(a)(2). Section 924(a)(2) provides for a term of imprisonment of "not more than 10 years" 18 U.S.C. § 924(a)(2). Section 3559 provides that an offense is a Class C felony where the maximum authorized term of

imprisonment is "less than twenty-five years, but ten or more years." 18 U.S.C. § 3559(a)(3). Because Defendant was convicted of a Class C felony, the court may impose a term of supervised release of not more than three years. 18 U.S.C. § 3583(b)(2).

In making its decision on the appropriate disposition, the court considered the uncontested portions of the Defendant's pre-sentence investigation report, evidence presented at the evidentiary hearings that the court believed as well as statements and recommendations by the attorneys of record.

The court considered the nature and circumstances of the offense as well as Defendant's history and characteristics. The court also considered the need for the sentence to reflect the seriousness of the offense, to afford adequate deterrence, to protect the public from further crimes of Defendant and to provide Defendant with needed training and medical care. The court believes that Defendant poses a danger to the community. Specifically, Defendant is a drug user who continues to adamantly deny any use of illegal substances, even after submitting several sweat patches which tested positive for cocaine. Defendant also poses a significant threat to the public when driving under the influence of a controlled substance. Defendant has been driving his car out-of-state without permission from his Probation Officer.

The beginning point for arriving at a reasonable disposition is to compute the advisory guideline sentence using the policy statements of the United States Sentencing Commission. *See generally* USSG Ch. 7. At the time of Defendant's original sentence, under the advisory guidelines, Defendant's advisory guideline sentence was 0 to 6 months and a criminal history category I. At the time of his revocation, Defendant's highest grade of violation was a Grade C. His advisory guideline range at the time of revocation would be three to nine months imprisonment under USSG §7B1.4(a). However, Application Note 5 to USSG §7B1.4 cross references the statutory requirements for revocation where the

Defendant was found to be in possession of a controlled substance or firearm or by refusing to comply with a supervision condition that includes drug testing. *See* USSG §7B1.4, comment. (n.5). Application Note 6 to USSG §7B1.4 provides that, in Defendant's case, the court should consider whether the availability of appropriate substance abuse programs or Defendant's current or past participation in such programs warrants an exception from the requirement of mandatory revocation and imprisonment under 18 U.S.C. § 3565(b)(4).

The court has "the discretion to provide for treatment rather than imprisonment." *United States v. Pierce*, 132 F.3d 1207, 1208 (8th Cir. 1997). However, the Eighth Circuit Court of Appeals recently concluded that this court did not abuse its discretion when it imposed an 18-month term of imprisonment (which allowed for participation in a long-term residential treatment program) on a defendant who failed to benefit from treatment and whose drug problem worsened during supervised release. *United States v. Zimmerman*, No. 05-1516, 2006 WL 929336, at *1 (8th Cir. Apr. 11, 2006) (unpublished). As stated above, Defendant is not an appropriate candidate for additional treatment at this time.

V. CONCLUSION

IT IS THEREFORE ORDERED THAT Defendant's probation is hereby revoked, and he is sentenced to a period of six months imprisonment. Upon release, Defendant shall be on supervised release for a period of two years.

IT IS SO ORDERED.

DATED this 7th day of July, 2006.

LINDA R. READE

JUDGE, U. S. DISTRICT COURT NORTHERN DISTRICT OF IOWA